

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
6 January 2005 (06.01.2005)

PCT

(10) International Publication Number
WO 2005/001063 A3

- (51) International Patent Classification⁷: **C12Q 1/68**,
C12P 19/34, C07H 21/00, 21/02, 21/04
- (21) International Application Number:
PCT/US2004/020589
- (22) International Filing Date: 25 June 2004 (25.06.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
60/482,653 25 June 2003 (25.06.2003) US
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- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:
— with international search report
- (88) Date of publication of the international search report:
14 July 2005
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: POLYNUCLEOTIDES CAPABLE OF TARGET-DEPENDENT CIRCULARIZATION AND TOPOLOGICAL LINKAGE

(57) Abstract: The invention provides allosterically regulatable polynucleotides capable of target-dependent circularization and topological linkage to a target nucleic acid molecule. Polynucleotides of the invention include a target binding sequence and a regulatory element which prevents circularization in the absence of the target binding. Polynucleotides may include a catalytic domain, allowing circularization to proceed via catalysis when the target binding sequence of the polynucleotide is bound to the target. Topologically linked polynucleotides may be used for detection of target molecules or to inhibit transcription or translation of the target.



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